

**INDUSTRIAL RELAYS**

The RT Series can withstand impulses of up to 4500V while still being very small, subminiature “sugar cube” size with a universal terminal footprint. This WPI industrial relay has pre-soldered terminals.

UL & CUL File #E245348

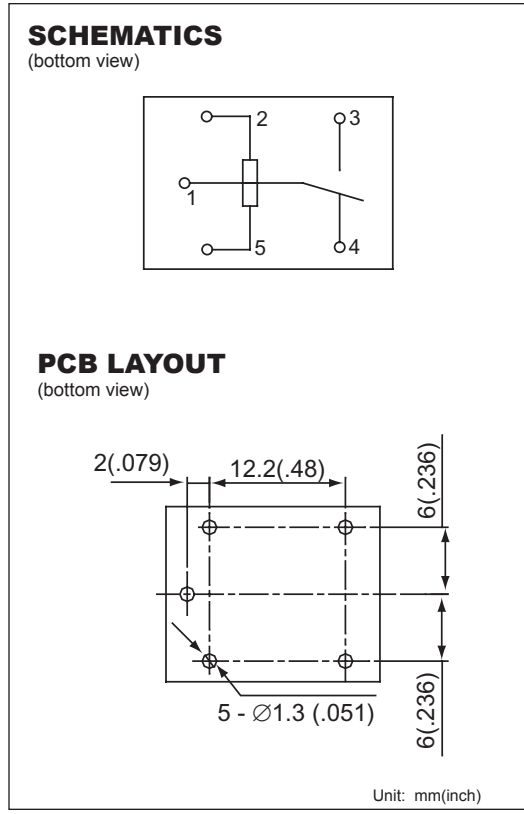
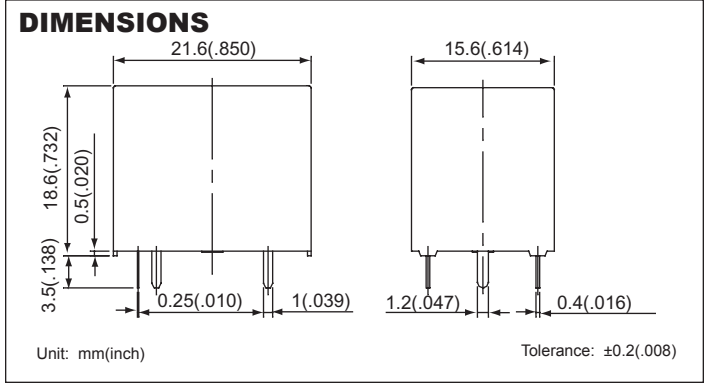
**FEATURES**

1. Subminiature “sugar cube” relay with universal terminal footprint.
2. UL class-F coil insulation model available (UL class-B coil insulation for standard model).
3. High switching capacity: 10A.
4. Withstands impulse of up to 4500V.
5. 400-mW and 360-mW coil power consumption types available.
6. Pre-soldered terminals.

**ORDERING INFORMATION**

**RT 1C - 12 H S F P**  
**(1) (2) (3) (4) (5) (6) (7)**

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|---|--|
| <p><b>(1) Basic Designation</b><br/>RT = RT Series</p> <p><b>(2) Contact Arrangement</b><br/>1A = 1 Form A (SPST-NO)<br/>1C = 1 Form C (SPDT)</p> <p><b>(3) Coil Voltage</b><br/>3~48V</p> <p><b>(4) Coil Sensitivity</b><br/>Nil = Standard<br/>H = High sensitivity</p> | <p><b>(5) Enclosure</b><br/>Nil = Unsealed type<br/>S = Sealed type</p> <p><b>(6) Type of Insulation</b><br/>Nil = Class B<br/>F = Class F</p> <p><b>(7) RoHS Compliance</b><br/>P = RoHS<br/>Nil = Standard</p> |
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**COIL RATINGS (AT 20°C)**

Coil Type	Coil Nominal Voltage (V)	Coil Resistance ( $\Omega \pm 10\%$ )	Pick-Up Voltage (V) $\leq$	Drop-Out Voltage (V) $\geq$	Nominal Current (mA)
DC Standard Coils	3	22.5	2.25	0.3	133.3
	5	63	3.75	0.5	79.4
	6	90	4.5	0.6	66.7
	9	200	6.75	0.9	45
	12	360	9	1.2	33.3
	24	1440	18	2.4	16.7
	48	5760	36	4.8	8.33
DC High Sensitivity Coils	3	25	2.25	0.3	120
	5	70	3.75	0.5	71
	6	100	4.5	0.6	60
	9	225	6.75	0.9	40
	12	400	9	1.2	30
	24	1600	18	2.4	15
	48	6400	36	4.8	7.5

\* Max continuous Voltage at 20°C: 130% of Coil Nominal Voltage.

**CONTACT RATINGS**

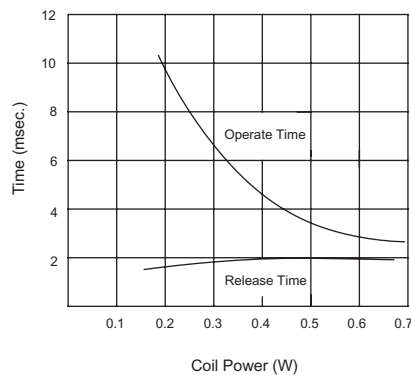
Contact Arrangement	1 Form A (SPST-NO)	1 Form C (SPDT)
Max. Switching Power	1440VA 240W	1440VA 240W
Mac. Switching Voltage	125VAC 30VDC	125VAC 30VDC
Max. Switching Current	12A	12A
Contact Resistance	≤100mΩ	≤100mΩ
Resistive Load	12A / 120VAC 10A / 125VAC 8A / 30VDC	12A / 120VAC 10A / 125VAC 8A / 30VDC
Motor Load	1/6HP / 120VAC 1/3HP / 125VAC	1/8HP / 120VAC
General Use	10A / 250VAC 6A / 277VAC	10A / 250VAC 6A / 277VAC
Horse Power Load	FLA: 15A LRA: 25A / 120VAC	
Pilot Duty		1.5A / 30VAC
TV Rating	TV-5 (120VAC) TV-3 (125VAC)	
Contact Material	silver alloy	silver alloy
Min. Permissible Load	100mA at 5VDC	100mA at 5VDC

**CHARACTERISTICS**

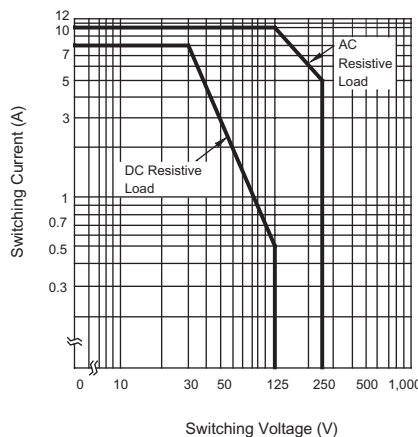
Electrical Life	1 x 10 <sup>5</sup> (at 1800 operations/hr) (12A / 120VAC, 3 x 10 <sup>4</sup> )
Mechanical Life	1 x 10 <sup>7</sup> (at 18000 operations/hr)
Initial Insulation Resistance	Min. 100MΩ 500VDC
Contact Resistance (Initial)	≤100mΩ
Operate Time	≤10ms
Release Time	≤5ms
Initial Dielectric Strength	50/60Hz 750VAC 1 min. (between open contact) 50/60Hz 2000VAC 1 min. (between all conductors)
Vibration Resistance	Malfunction: 10 to 55Hz at Double Amplitude of 1.5mm Destructive: 10 to 55Hz at Double Amplitude of 1.5mm
Impulse Withstand Strength	4500VAC (1.2 x 50μs) (between coil and contacts)
Shock Resistance	Malfunction: 10G(11ms) Destructive: 10G(6ms)
Ambient Temperature	-40°C ~ +85°C
Ambient Humidity	35% to 85%
Unit Weight	Approx. 12g

**REFERENCE DATA**

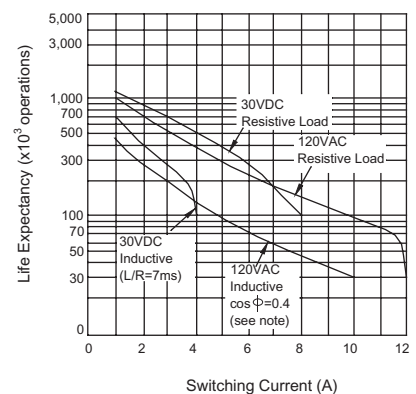
**Timing**



**Maximum Switching Power**



**Life Expectancy**



Note: Same curve as for 250VAC resistive load.